Prostate & Rectal Exam

Dr. Gary Mumaugh – Western Physical Assessment

Anatomy Review

- The gastrointestinal tract terminates in a short segment, the anal canal
  - Normally, the anal canal is held in a closed position by two sphincter muscles
  - The angle of the anal canal lies on a line roughly between the anus and the umbilicus
  - The anal canal is liberally supplied by somatic sensory nerves

Anatomy Review

- A serrated line demarcates the anal canal from the rectum
- The anorectal junction (aka pectinate or dentate line) is the boundary between somatic and visceral nerves

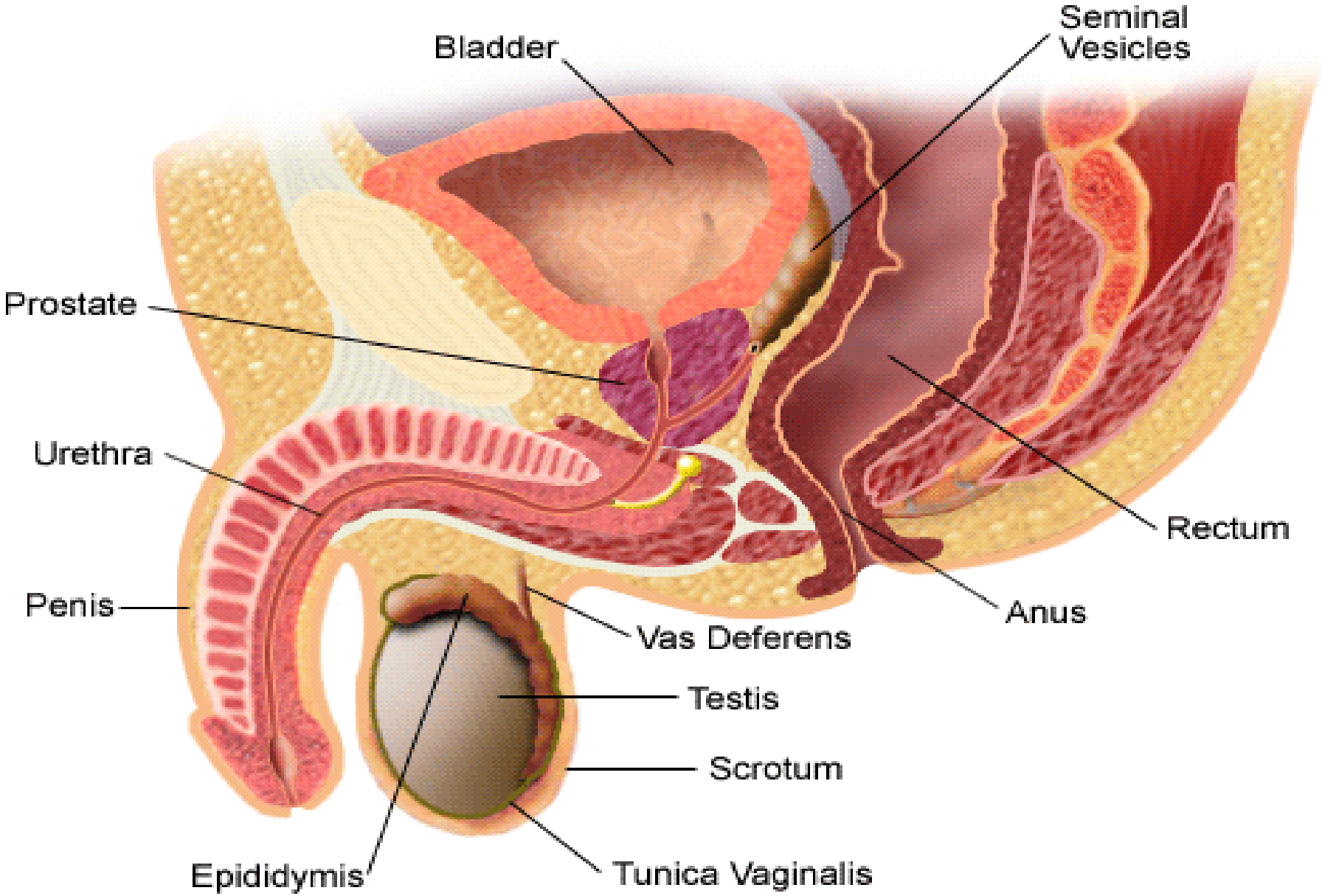
Anatomy Review

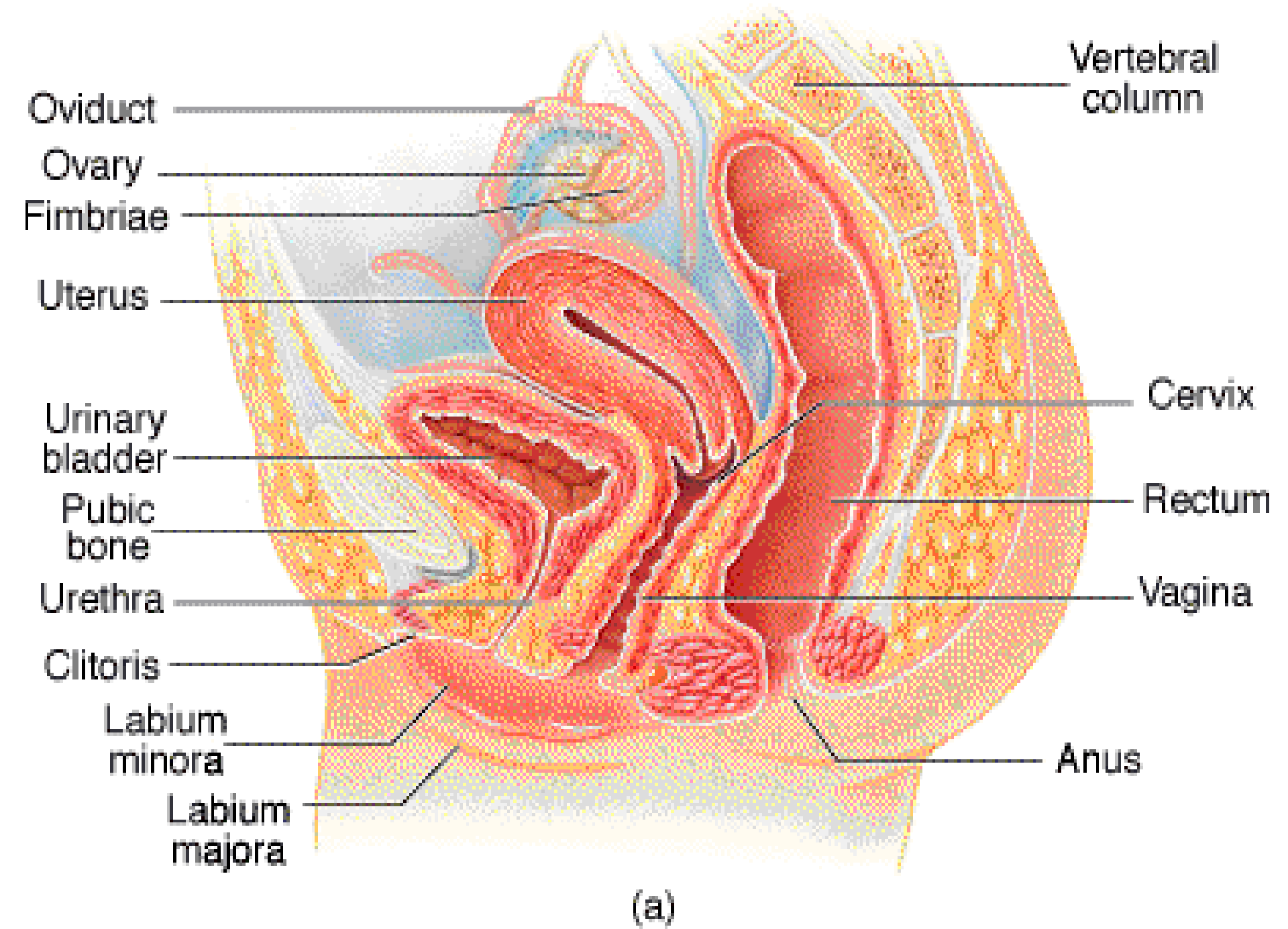
- The rectum is the curved lower, terminal segment of large bowel
- It is about 12 cms long and runs along the concavity of the sacrum
- Anterior to the lower 1/3 of the rectum lie different structures in men and women

Anatomy Review

- In men, anterior to the lower 1/3 of the rectum lie the prostate, bladder base and seminal vesicles
- In women, anterior to the lower 1/3 of the rectum lies the vagina
- At the tip of the examining finger it may be possible to feel cervix and even a retroverted Uterus

Male Reproductive Tract





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Common or Concerning Symptoms

- Change in bowel habits
- Blood in the stool
- Pain with defecation
- Rectal bleeding or tenderness
- Anal warts or fissures
- Weak urine stream
- Burning on urination

The Health History

- Questions concerning symptoms related to the anorectal area may be classified into two categories
  - Lower gastrointestinal
  - Lower genitourinary

The Health History

- Lower Gastrointestinal Concerns
  - Is there any change in the pattern of bowel function?
  - Any change in the size or caliber of the stool?
  - Any diarrhea or constipation?
  - What color is the stool?
  - Any obvious blood or mucus in the stool?

The Health History

- Lower Gastrointestinal Concerns
  - Any pain on defecation?
  - Any itching?
  - Any extreme tenderness in the anus or rectum?
  - Any purulent discharge or bleeding?
  - Any history of anal warts, ulcerations, or fissures?
  - Any involvement in anal intercourse?

The Health History

- Lower Genitourinary Concerns (for men)
  - Is there a difficulty starting or holding back urine stream?
  - Is the urine flow weak?
  - Is there frequent urination, especially at night?
  - Is there any pain or burning upon urination or ejaculation?

The Health History

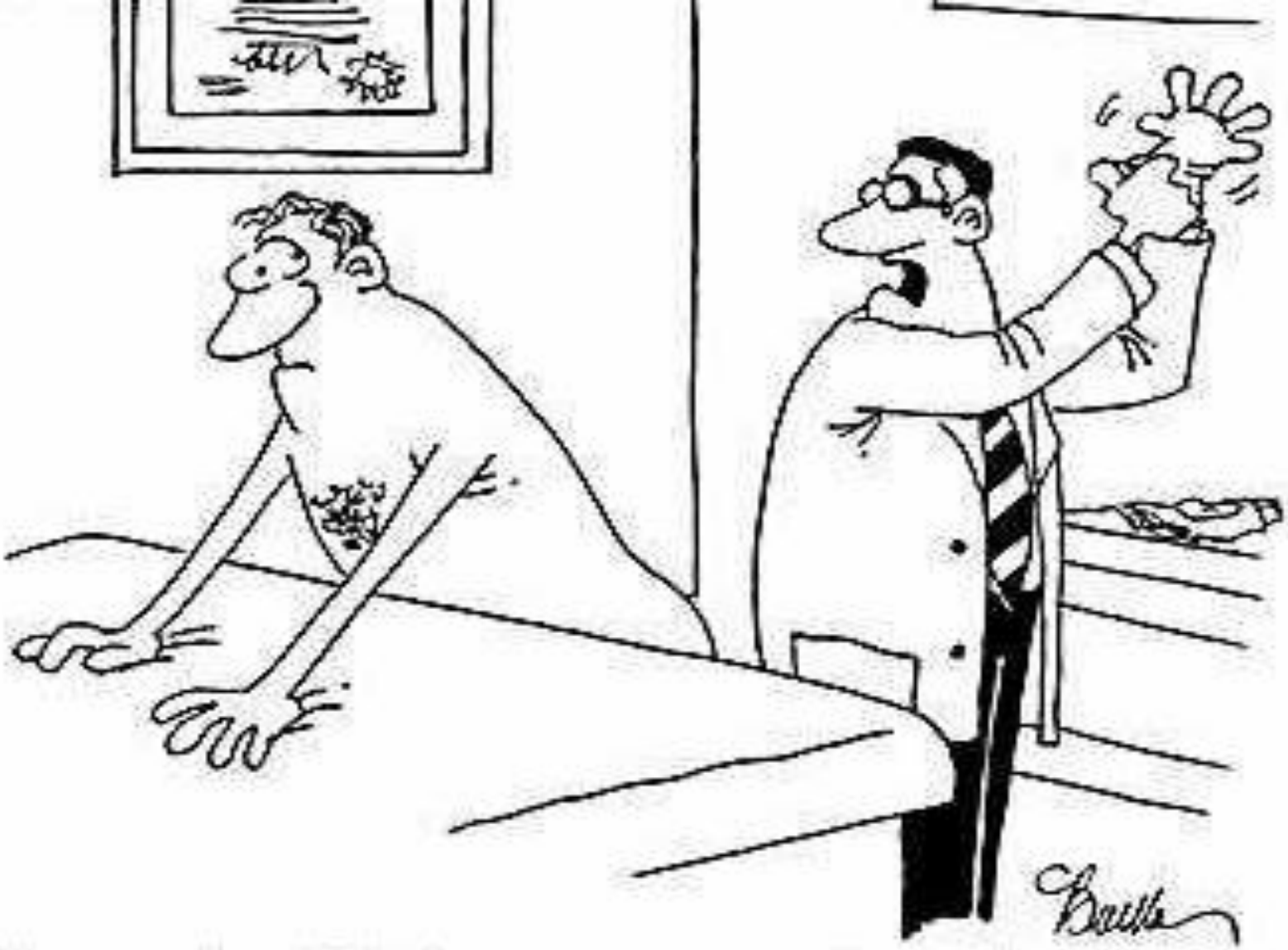
- Lower Genitourinary Concerns (for men)
  - Any blood in the urine or semen?
  - Any pain or stiffness in the lower back, hips, or legs?
  - Any discomfort or heaviness at the base of the penis with associated malaise, fever or chills?

Health Promotion & Counseling

- Screen for prostate cancer
  - Prostate is the leading cancer diagnosed in men in the USA, and the 3rd leading cause of death
  - Risk factors are age, ethnicity, and family history
- Screen for polyps and colorectal cancer
- Provide counseling about STD

When is a D.R.E. Done?

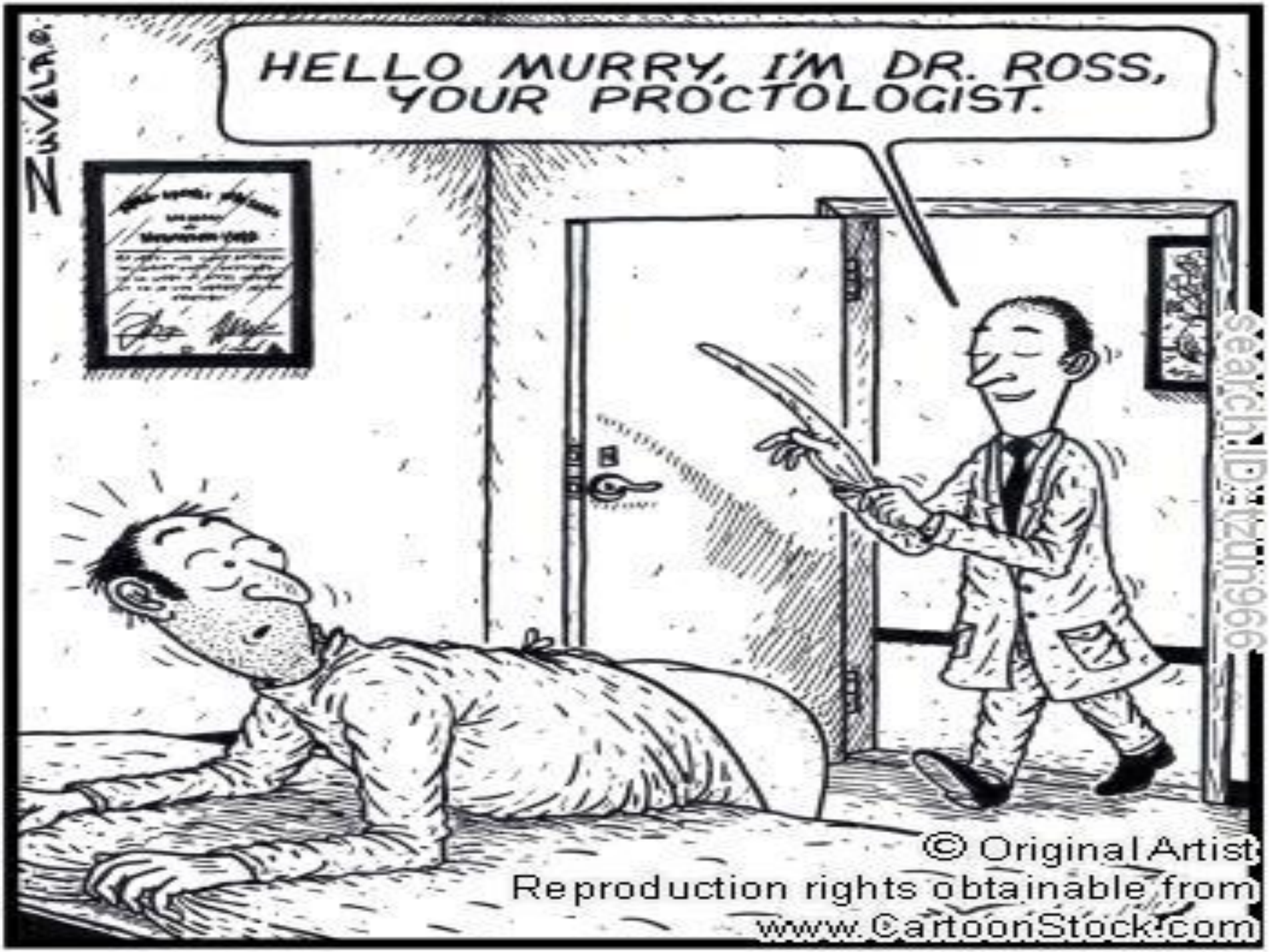
- This is an intimate and sometimes uncomfortable examination which is most often done when disease (usually gastrointestinal or genitourinary disease) is suspected or already identified.
- It may also be done as part of a screening examination when there is no suspicion or expectation of disease but the examination is performed as part of a thorough screening process.
- It is important in all cases to explain the reasons for the examination and to get verbal consent.



"Honestly, if there was a virtual prostate exam, don't you think I'd want to be the first to know?"

Indications for D.R.E.

- Assessment of the prostate (particularly symptoms of outflow obstruction)
- When there has been rectal bleeding (prior to proctoscopy, sigmoidoscopy and colonoscopy)
- Constipation
- Change of bowel habit
- Problems with urinary or fecal continence
- In exceptional circumstances to detect uterus and cervix (when vaginal examination is not possible)


HELLO MURRY, I'M DR. ROSS, YOUR PROCTOLOGIST.
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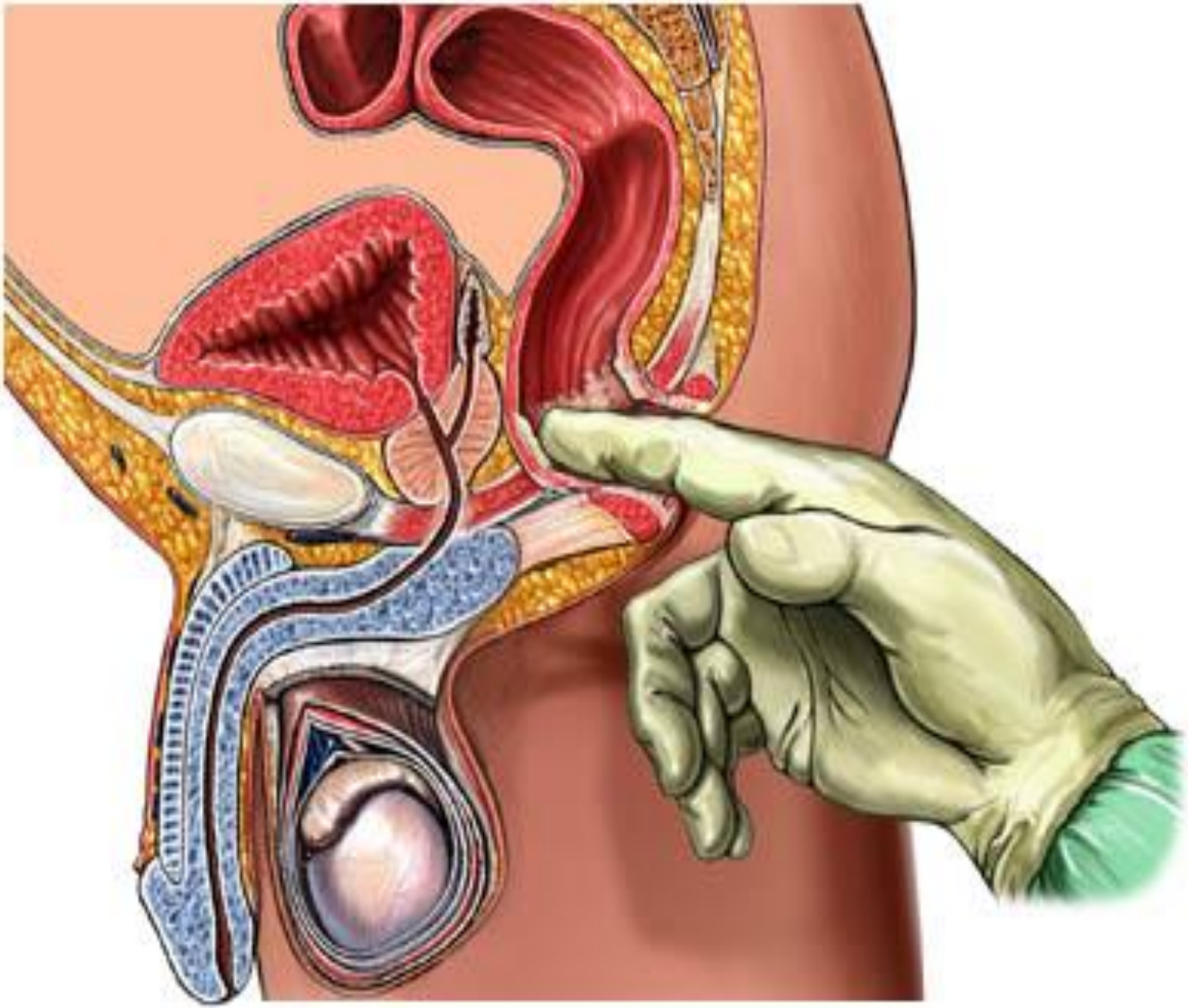
Procedure

- The finger is then moved through 180°, feeling the walls of the rectum.
- With the finger then rotated in the 12 o'clock position, helped usually by the examiner bending knees in a half crouched position and pronating the examining wrist, the anterior wall can be palpated.
- Rotation facilitates further examination of the opposing the walls of the rectum. In men, the prostate will be felt anteriorly. In women, the cervix and a retroverted uterus may be felt with the tip of the finger.
- It is important to feel the walls of the rectum throughout the 360°. Small rectal wall lesions may be missed if this is not done carefully.

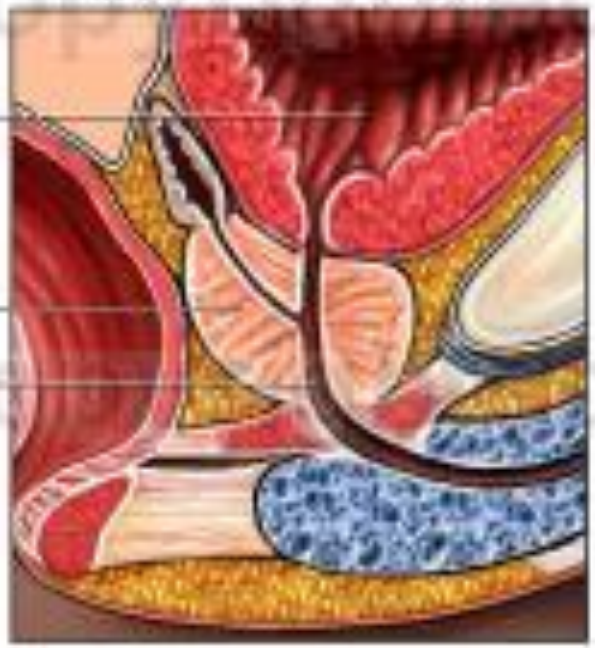
Examination of the Prostate Gland

- Normal size is 3.5 cms wide, protruding about 1 cm into the lumen of the rectum
- Consistency: it is normally rubbery and firm with a smooth surface and a palpable sulcus between right and left lobes
- There should not be any tenderness
- There should be no nodularity

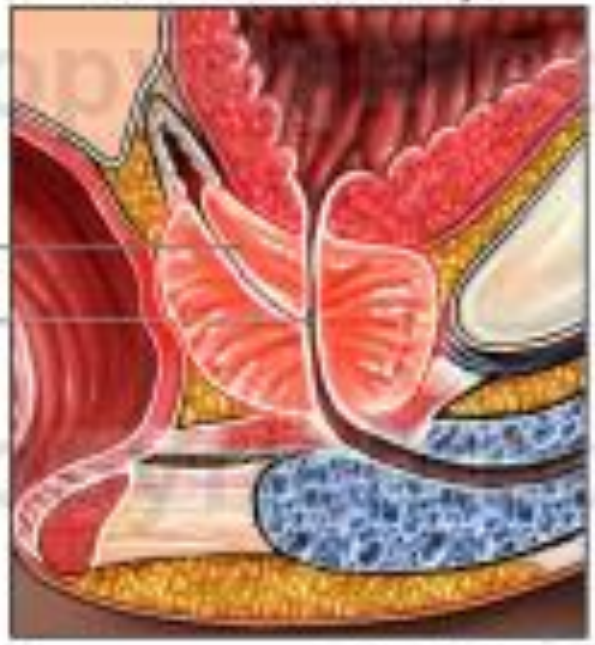


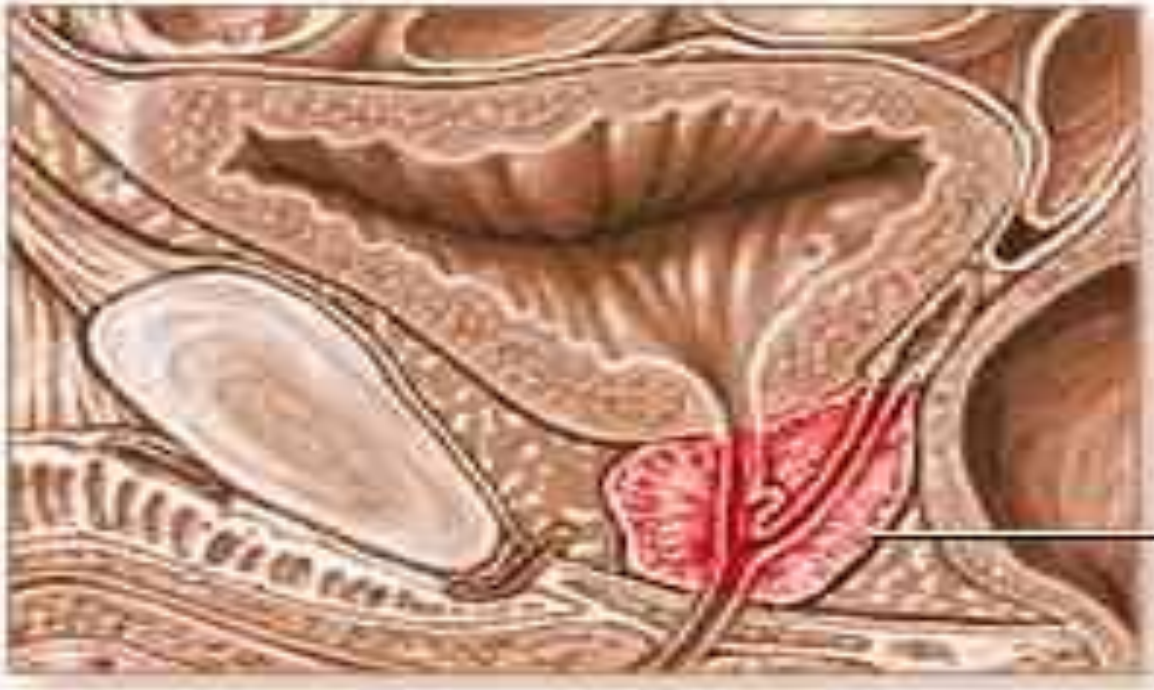
Normal Prostate Anatomy

Normal Prostate Anatomy



BPH Prostate Anatomy




Normal prostate


Prostate cancer

External Inspection

- Skin disease
- Skin tags
- Genital warts
- Anal fissures
- Anal fistula
- External hemorrhoids
- Rectal prolapse
- Skin discoloration with Crohn's disease
- External thrombosed piles

Internal Inspection

- Simple piles (but best examined at proctoscopy)
- Rectal carcinoma
- Rectal polyps
- Tenderness
- Diseases of the prostate gland
- Malignant or inflammatory conditions of the peritoneum (felt anteriorly)

Contraindications

- Imperforate Anus
- Unwilling patient
- Immunosuppressed patient
- Absence of anus following surgical excision
- Stricture
- Moderate to severe anal pain
- Prolapsed thrombosed internal hemorroids

"It's the crackle and pop I'm not looking forward to!"

- A 65-year-old male presents to the clinic for a routine examination. The following is the documentation of his prostate exam. Which statement would be of concern?
  - Firm
  - Heart-shaped
  - 2.5 cm. long
  - Median sulcus palpable

- Firm is of concern

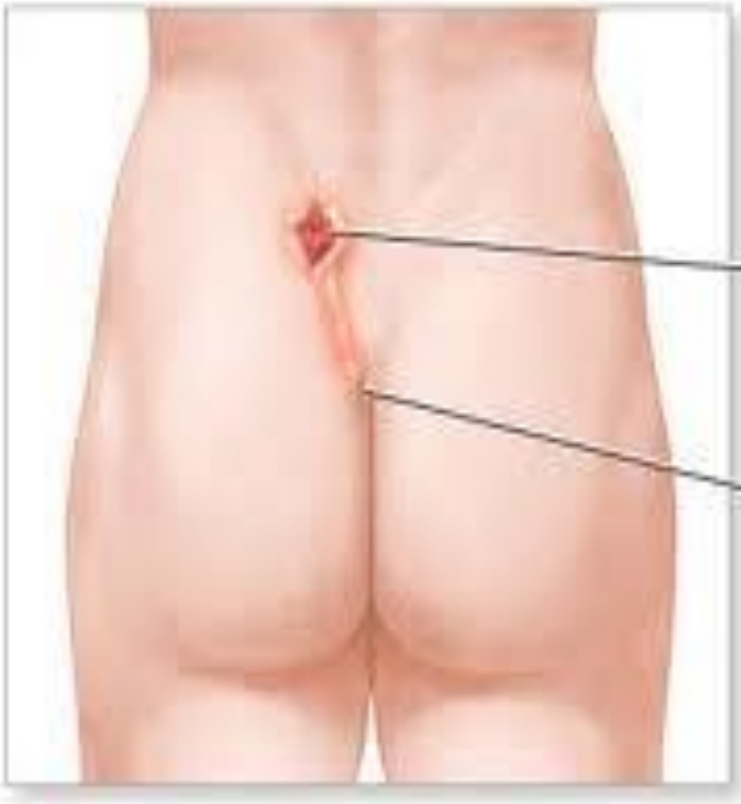
  – The normal prostate is rubbery

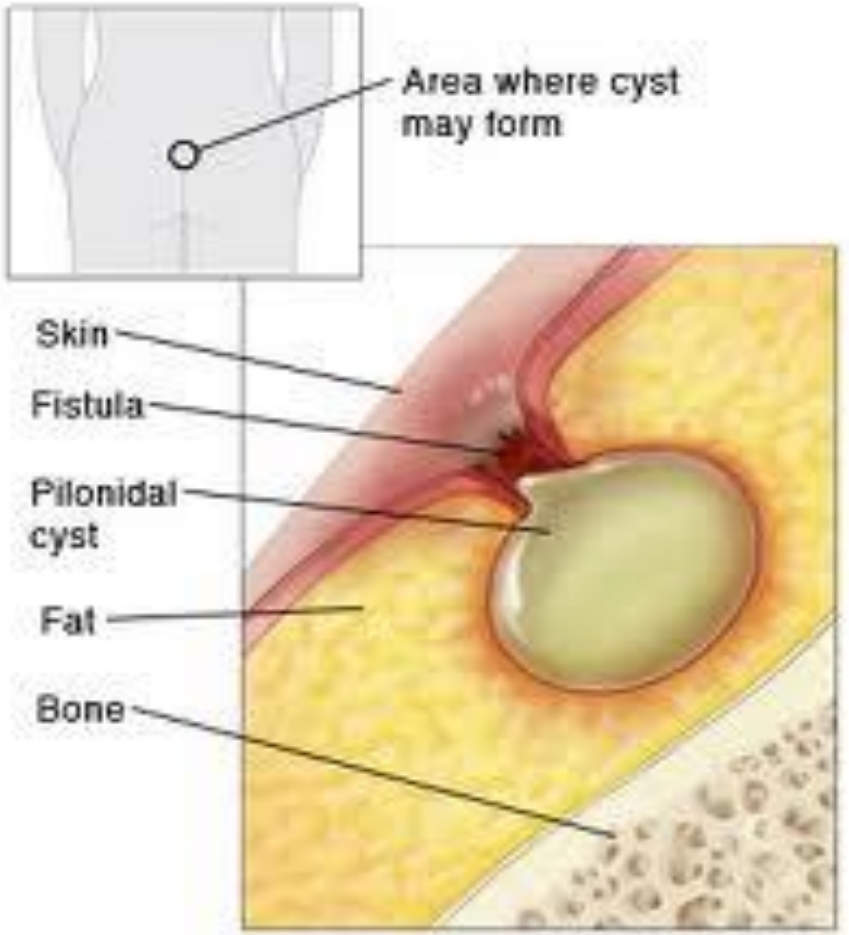
Techniques of Examination

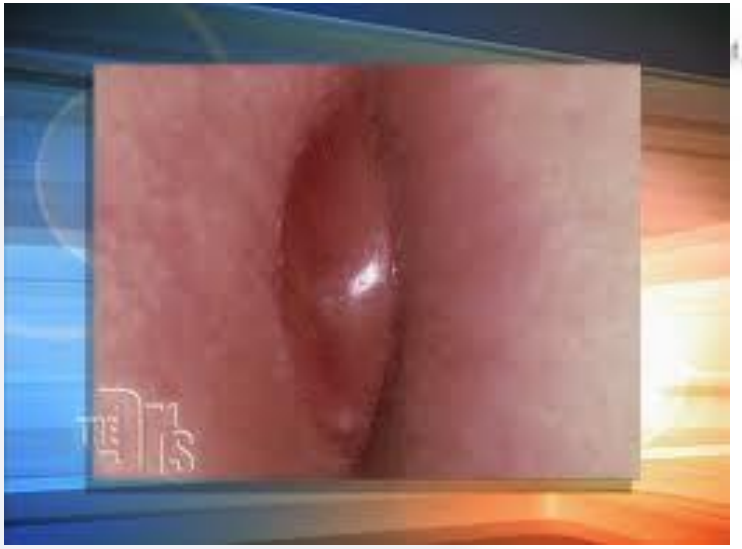
- The female patient
  - The rectum is usually examined after the female genitalia, when patient is still on table
  - If the rectum only requires examination, the side-lying position affords a better view of the perianal and sacrococcygeal area
  - Use the same techniques for examination that are used for men

Pilonidal Cyst / Sinus

- Mostly congenital – penetration of hair deep into the skin
- Sinus – when drains outside
- Midline superficial to coccyx or sacrum
- Usually asymptomatic or discharge fluid or pus
- Usually gets infected
- Surgery indicated


Pilonidal cyst
Pilonidal dimple


Area where cyst may form
Skin
Fistula
Pilonidal cyst
Fat
Bone

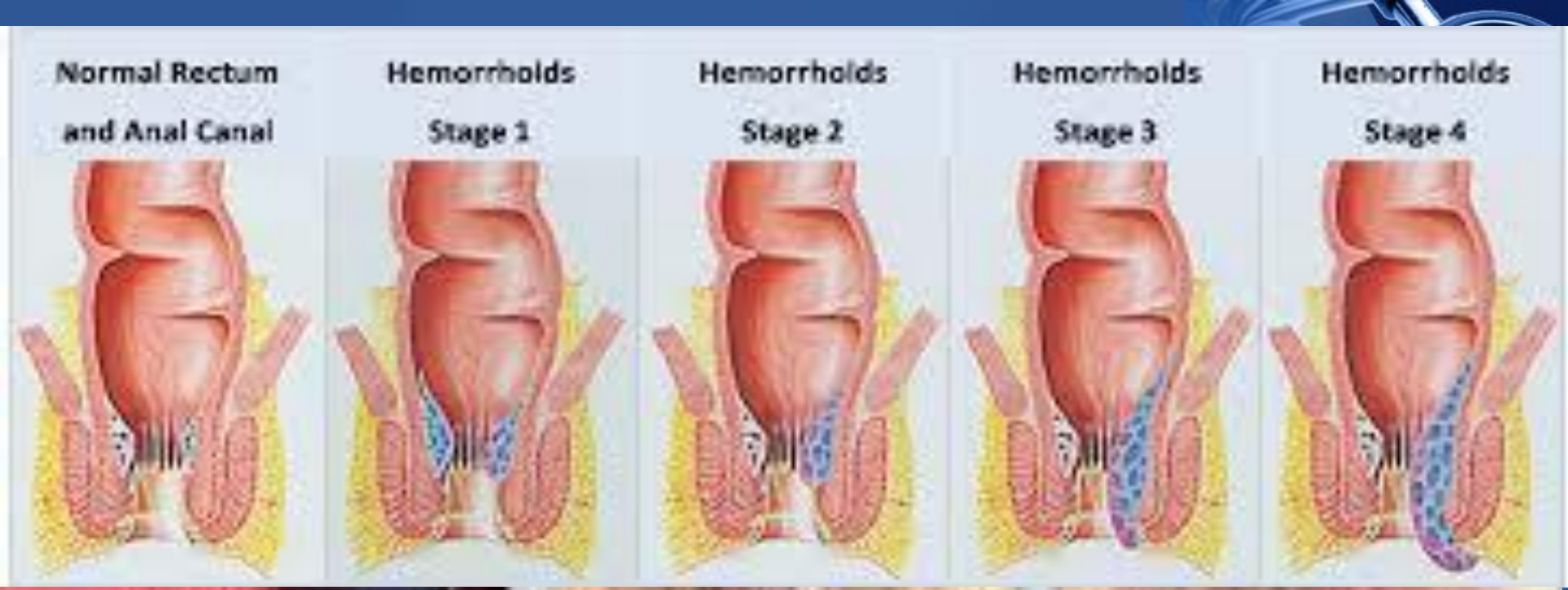


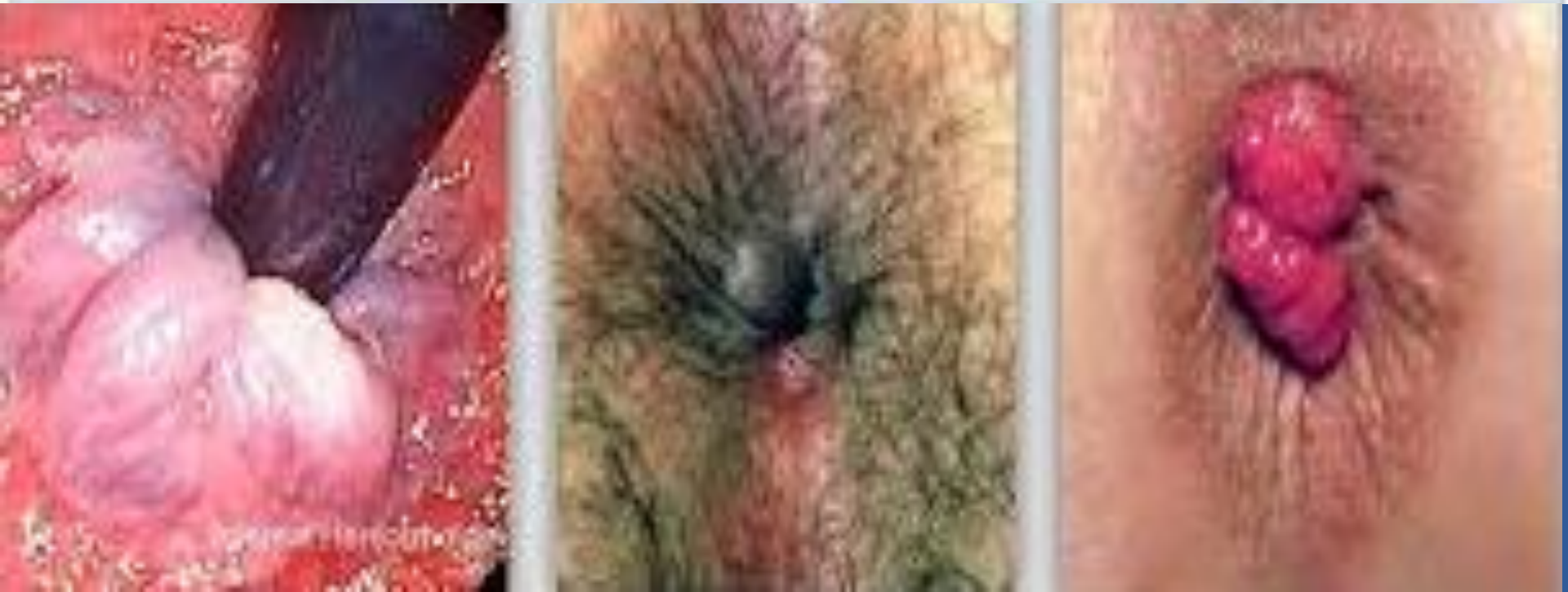
Hemorrhoid

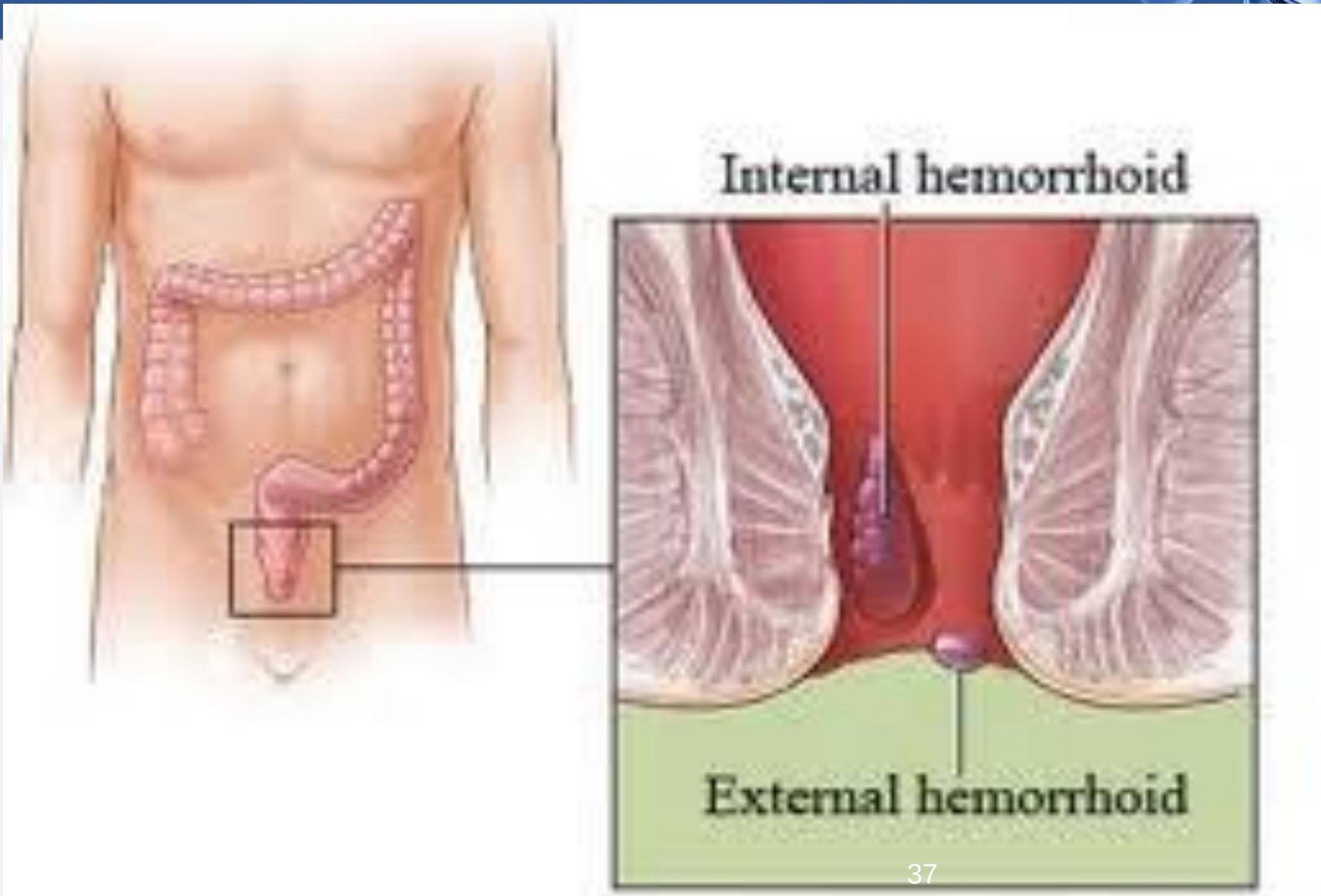
- External hemorrhoids are dilated hemorrhoidal veins and originate below the pectinate line and are covered with skin
  - Seldom produce symptoms unless thrombosed
  - Pain and bleeding with defecation
  - Tender swollen bluish mass visible at the anal margin

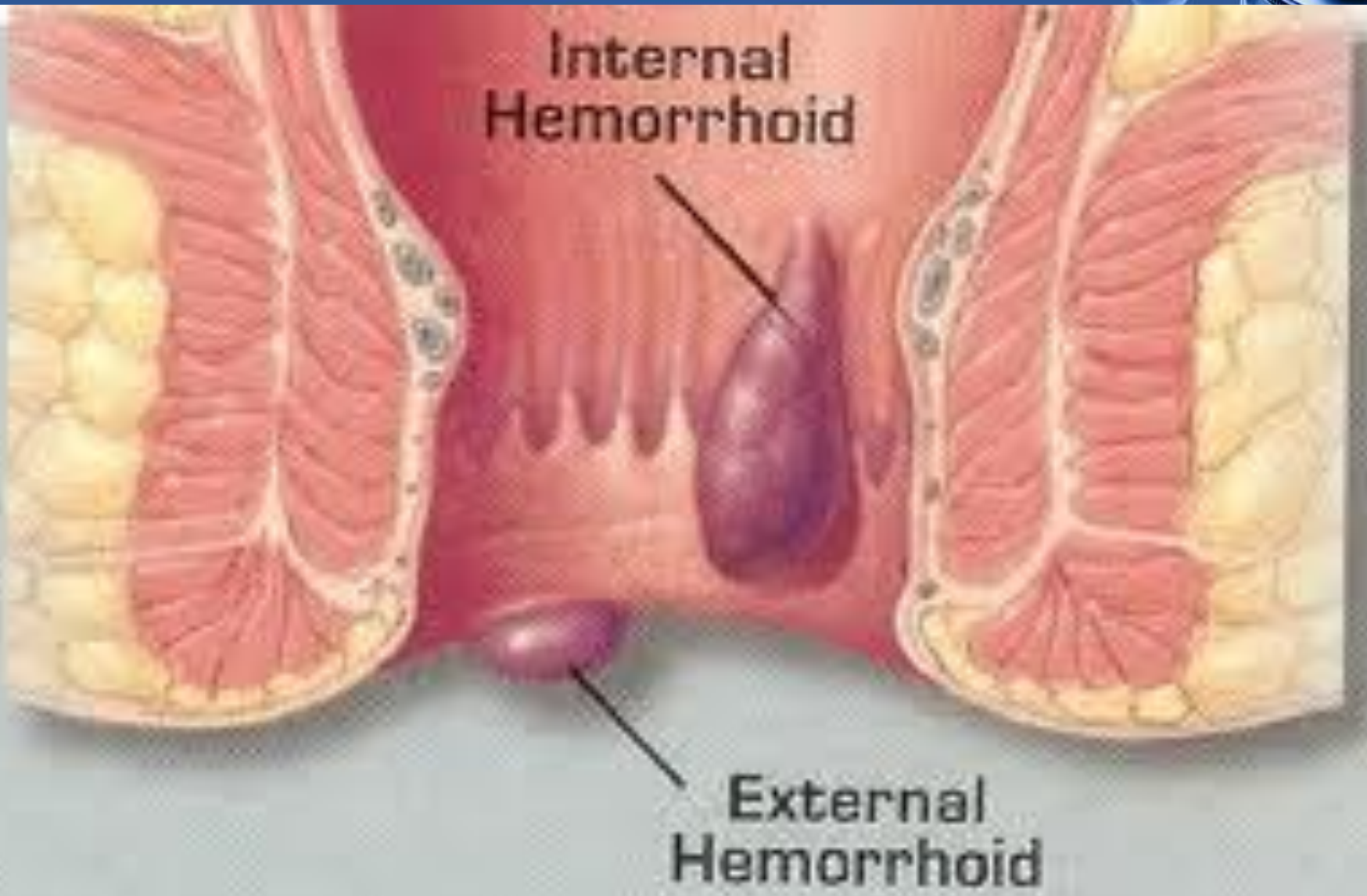
- Internal hemorrhoids are vascular enlargements above the pectinate line
- Usually bright red blood with defecation
- May also prolapse through the anal canal and appear as reddish, moist, protruding masses

- Rectal prolapse – on straining rectal mucosa with or without its muscular wall prolapses through anus


Normal Rectum
and Anal Canal
Hemorrhoids
Stage 1
Hemorrhoids
Stage 2
Hemorrhoids
Stage 3
Hemorrhoids
Stage 4




Internal hemorrhoid
External hemorrhoid


Internal
Hemorrhoid
External
Hemorrhoid

Anal Fissure

- Fissure
  - Painful ulceration of anal canal caused by injury, constipation or diarrhea
  - Mainly in the midline posteriorly
  - Inspection usually shows a skin tags below
  - Painful to examine. May need local anesthetics.
  - Sitz bath / stool softeners / zinc oxide and time to heal